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Group Art Unit: 2615

Re: Application No. 09/833,183

Attached is an Amended Appeal Brief (in response to the Office communication mailed 6/1/07).

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on June 5, 2007.

Susan J. Sidwell



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Attorney Docket No. 705570US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2615)
Examiner: Justin I. Michalski)
Serial No. 09/833,183)
Applicants: Joseph A. Hinkle)
Filed: April 11, 2001)
For: RADIO DISTORTION)
PROCESSING)
Attorney Docket No.: 705570US1)

**AMENDED
APPEAL BRIEF**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Final Rejection of Claims 1-13 under 35 U.S.C. § 103 (a) in the Final Office Action mailed November 14, 2006.

I. REAL PARTY IN INTEREST

The real party in interest is DaimlerChrysler Corporation, a corporation organized and existing under the laws of the State of Delaware U.S.A., and having a principal place of business in Auburn Hills, Michigan, U.S.A.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences which would directly affect or be directly affected by or have a bearing on the Board's decision in the instant Appeal.

III. STATUS OF THE CLAIMS

Claims 14-18 have been withdrawn from consideration and were previously canceled.

Claims 1-13 are pending in this application. All pending Claims have been rejected and are the subject of this Appeal. A copy of Claims 1-13 is set forth in the Appendix hereto.

IV. STATUS OF AMENDMENTS

The Final Office Action of November 14, 2006 included rejections to the Claims under 35 U.S.C. § 103(a) as being unpatentable over Brewer (U.S. Patent No. 5,255,324) in view of Wassink (U.S. Publication No. 5,633,940). Applicants filed a Response After Final Rejection on January 3, 2007, with no further amendment to the pending Claims. A Notice of Appeal was filed March 13, 2007.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

An audio distortion processing system (10 of FIG. 1) includes a first processing unit (16 of FIG. 1) adapted to be in communication with an audio source (12 of FIG. 1) wherein the first processing unit (16 of FIG. 1) controls a plurality of parameters. A plurality of inputs (18, 20, 22 of FIG. 1, and Paragraph [0014]) communicate with the first processing unit (16 of FIG. 1), the plurality of inputs (18, 20, 22 of FIG. 1) respectively indicating values of the plurality of parameters. A power amplifier (24 of FIG. 1 and Paragraph [0014]) in electrical communication with the first processing unit (16 of FIG. 1) for receiving an output signal of the first processing unit (16 of FIG. 1), the power amplifier (24 of FIG. 1) selectively generating a clipping signal (Paragraph [0015]), the power amplifier (24 of FIG. 1) adapted to be in communication with at least one speaker (26 of FIG. 1). A second processing unit (14 in FIG. 1) in electrical communication with the power amplifier (24 of FIG. 1) and the first processing unit (16 of FIG. 1) for receiving the clipping signal

from the power amplifier (24 of FIG. 1) and sending control signals to the first processing unit (16 of FIG. 1). A plurality of inputs in communication with the second processing unit, the plurality of inputs respectively indicating values of the plurality of parameters. The control signals initiate an incremental reduction in a level of a first parameter of the plurality of parameters until one of either the clipping signal recedes or a reduction limit of the first parameter is achieved. (FIG. 3 and Paragraph [0017]–[0018].) The control signals then apply an incremental reduction in a level of a second parameter of the plurality of parameters if a reduction limit of the first parameter is achieved and the clipping signal persists. (Id.) The control signals also initiate an incremental recovery of an original level of the second parameter if the clipping signal is not detected. (FIG. 4 and Paragraph [0020].) and then an incremental recovery of an original level of the first parameter ensures if the original level of the second parameter is fully recovered and the clipping signal is not detected. (Id.)

In independent claim 8, Applicants call for a method for controlling distortion in an audio system having first and second parameters each of which is a function of an operator input. (Paragraph [0014], lines 7–12). A reduction limit of the first parameter is determined (Paragraph [0017], lines 5–8). A reduction limit of the second parameter is determined (Paragraph [0017], lines 9–16). A clipping signal is detected (step 100, FIG. 2, Paragraph [0016]). A level of the first parameter is incrementally reduced until one of either the clipping signal recedes or the reduction limit of the first parameter is achieved (FIG. 3 and Paragraph [0017]–[0018]). A level of the second parameter is incrementally reduced if the reduction limit of the first parameter is achieved and the clipping signal persists (FIG. 3, Paragraphs [0017]–[0018]). The original level of the second parameter is incrementally recovered if the clipping signal is not detected (FIG. 4 and Paragraph [0020]). Then the original level of the first parameter is incrementally recovered if the original level of the second parameter is fully recovered and the clipping signal is not detected (FIG. 4 and Paragraph [0020]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Presented for review is the rejection of Claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Brewer (U.S. Patent No. 5,255,324) in view of Wassink (U.S. Publication No. 5,633,940).

VII. ARGUMENTS

Claims 1-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brewer (U.S. Patent No. 5,255,324) in view of Wassink (U.S. Publication No. 5,633,940). The rejection is respectfully traversed.

Claim 1 includes both incrementally reducing the first parameter before the second parameter in the event of clipping *and* incrementally recovering an original level of the second parameter before incrementally recovering an original level of the first parameter. This combination of elements is not taught or suggested by Brewer and Wassink either alone or in combination.

The Final Office Action of November 14, 2006 recognized that Brewer does not disclose recovering a first parameter after a second parameter is fully recovered. (Final Office Action, Page 4.) The Final Office Action asserted that Wassink mentions different orders of affecting parameter settings, and the combination of Brewer and Wassink is obvious. However, neither Wassink nor Brewer disclose or suggest that the claimed order would be in any way beneficial.

According to M.P.E.P. § 2143.01, "[t]he mere fact that references can be . . . modified does not render the resultant combination obvious unless the prior art also suggests the desirability of [such modification]." *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). That one of skill in the art has the capabilities to arrive at the invention is not the test for whether one of skill in the art would have arrived at the invention based on the teachings of the prior art. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300, 1301-02 (Bd. Pat. App. & Inter. 1993) ("That which is within the

capabilities of one skilled in the art is not synonymous with obviousness"). It is improper to use the inventor's disclosure as an instruction book on how to reconstruct the prior art. *Panduit Corp. v. Dennison Mfg. Co.*, 1 USPQ2d 1593 (Fed. Cir. 1987). Both the suggestion and the expectation of success must be founded in the prior art and not in Applicant's disclosure. *In re Farrell*, 7 USPQ2d 1673 (Fed. Cir. 1988) (emphasis added.).

As best understood by the Applicants, the Final Office Action asserts that it would have been obvious to modify the audio distortion processing system of Brewer by providing parameter recovery in reverse order to provide maximum audio output and to avoid output signal distortion. However, obviousness must be determined at the time that the invention was made. 35 U.S.C. §103. The relevant prior art that should be considered is only that which he or she would have selected without the advantage of hindsight or knowledge of the invention. *Union Carbide Corp. v. American Can Co.*, 220 USPQ 584 (Fed. Circ. 1984).

The combination of Claim 1 primarily reduces noticability/perceivability of audio distortion reduction processes for listeners by initially reducing narrowband gain and then by initially recovering wideband gain. (Paragraph [0021].) In contrast, Brewer is directed to a system for improving sound quality by merely reducing clipping in an audio spectrum, as is common in the art. Brewer does not appear to contemplate initial recovery of wideband gain. Further, Wassink is directed to a system *increasing perceivability* of volume adjustment. (Column 1, Lines 44-47.) Wassink is not directed to *reducing* noticability of audio distortion. Therefore it is unclear as to why one of ordinary skill in the art would combine the references as proposed. It is therefore respectfully submitted that the Examiner has not made a legally sufficient showing of a motivation to combine based on actual, specific, evidence.

Since the Examiner has offered no proper support or motivation for combining the references other than an unsupported assertion that the combination would be beneficial, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." M.P.E.P. § 2145.

Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

Claim 1 is believed to be allowable for at least these reasons. Claim 8 is believed to be allowable for at least similar reasons as Claim 1. Claims 2-7 and 9-13 depend from Claims 1 and 8 and are believed to be allowable for at least this reason.

VIII. SUMMARY

The cited references, taken separately or in combination, fail to disclose or suggest every limitation in Applicants' pending Claims. Therefore, the Examiner has failed to establish a *prima facie* case of unpatentability, and the rejection of Claims 1-13 under 35 U.S.C. § 103(a) should be reversed.

Respectfully submitted,

Joseph A. Hinkle

Dated: June 5, 2007

By: 

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CLAIMS APPENDIX

Listing of Claims

1. An audio distortion processing system comprising:

a first processing unit adapted to be in communication with an audio source wherein said first processing unit controls a plurality of parameters;

a plurality of inputs in communication with said first processing unit, said plurality of inputs respectively indicating values of said plurality of parameters;

a power amplifier in electrical communication with said first processing unit for receiving an output signal of said first processing unit, said power amplifier selectively generating a clipping signal, said power amplifier adapted to be in communication with at least one speaker;

a second processing unit in electrical communication with said power amplifier and said first processing unit for receiving said clipping signal from said power amplifier and sending control signals to said first processing unit; and

a plurality of inputs in communication with said second processing unit, said plurality of inputs respectively indicating values of said plurality of parameters;

wherein said control signals initiate an incremental reduction in a level of a first parameter of said plurality of parameters until one of either said clipping signal recedes or a reduction limit of said first parameter is achieved and then incremental reduction in a level of a second parameter of said plurality of parameters if a reduction limit of said first parameter is achieved and said clipping signal persists; and

an incremental recovery of an original level of said second parameter if said clipping signal is not detected and then an incremental recovery of an original level

of said first parameter ensures if said original level of said second parameter is fully recovered and said clipping signal is not detected.

2. The audio distortion processing system of claim 1, wherein said reduction limit of said first parameter is a function of a first input of said plurality of inputs.

3. The audio distortion processing system of claim 1, wherein said reduction limit of said first parameter is equal to one half of said original level of said first parameter.

4. The audio distortion processing system of claim 1, wherein said reduction limit of said second parameter is a function of said reduction limit of said first parameter.

5. The audio distortion processing system of claim 1, wherein a reduction limit of said second parameter is equal to the difference between a maximum reduction value of said second parameter and said reduction limit of said first parameter.

6. The audio distortion processing system of claim 1, wherein said first parameter is bass and a corresponding first input of the plurality of inputs is operator selectable bass boost.

7. The audio distortion processing system of claim 1, wherein said second parameter is volume and a corresponding second input of the plurality of inputs is operator selectable volume level.

8. A method for controlling distortion in an audio system having first and second parameters wherein each of said parameters is a function of an operator input, and method comprising the steps of:

determining a reduction limit of said first parameter;

determining a reduction limit of said second parameter;

detecting a clipping signal in said audio system;

incrementally reducing a level of said first parameter until one of either said clipping signal recedes or said reduction limit of said first parameter is achieved;

incrementally reducing a level of said second parameter if said reduction limit of said first parameter is achieved and said clipping signal persists; and

incrementally recovering an original level of said second parameter if said clipping signal is not detected and then incrementally recovering an original level of said first parameter if said original level of said second parameter is fully recovered and said clipping signal is not detected.

9. The method of claim 8, wherein said first parameter is a bass parameter and said second parameter is a volume parameter.

10. The method of claim 8, wherein said reduction limit of said first parameter is a function of an operator input.

11. The method of claim 8, wherein said reduction limit of said first parameter is equal to one half of an operator selectable first parameter level.

12. The method of claim 8, wherein said reduction limit of said second parameter is a function of said reduction limit of said first parameter.

13. The method of claim 8, wherein said reduction limit of said second parameter is equal to the difference between a maximum reduction limit of said second parameter and said reduction limit of said first parameter.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.